

MAR/FY06

FORT CHAFFEE

Arkansas

**Base Realignment & Closure
Installation Action Plan**

Final 21 Sep 2006

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Statement of Purpose

The purpose of the Installation Action Plan (IAP) is to outline the total multi-year Cleanup Program for an installation. The plan identifies environmental cleanup requirements at each site or area of concern, and proposes a comprehensive, installation-wide approach, with associated costs and schedules, to conduct investigations and necessary remedial actions.

In an effort to coordinate planning information between the US Army Environmental Center (USAEC), Fort Chaffee, Base Realignment and Closure (BRAC) Division, executing agencies an IAP was completed. The IAP is used to track requirements, schedules and tentative budgets for all Army installation cleanup programs.

All site-specific funding and schedule information has been prepared according to projected overall Army funding levels and is, therefore, subject to change.

The following agencies contributed to the formulation and completion of this Installation Action Plan during a book update:

Company/Installation/Branch

Army BRAC Office
and Environment, Inc.
USAEC, LLC for USAEC

Acronyms & Abbreviations

ADEQ	Arkansas Department of Environmental Quality
AEDB-R	Army Environmental Database-Restoration
AOC	Area of concern
AOI	Area of interest
ARANG	Arkansas Air National Guard
ARARNG	Arkansas Army National Guard
AST	Aboveground storage tank
BRAC	Base Realignment and Closure
BTT	Base Transition Team
CC	Compliance Cleanup
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CTC	Cost-to-Complete
DDT	Dichlorodiphenyltrichloroethane
DERP	Defense Environmental Restoration Program
DOCC	Description of Current Conditions
DOD	Department of Defense
DRMO	Defense Reutilization and Marketing Office
DSERTS	Defense Sites Environmental Restoration Tracking System
EBS	Environmental baseline survey
EE/CA	Engineering Evaluation/Cost Analysis
EOD	Explosive ordnance disposal
ER,A	Environmental Restoration, Army
FS	Feasibility Study
FTCH	Fort Chaffee abbreviation in AEDB-R
FY	Fiscal Year
HSWA	Hazardous and Solid Waste Amendments
HW	Hazardous Waste
IAP	Installation Action Plan
IRP	Installation Restoration Program
JRTC	Joint Readiness Training Center
LF	Landfill
LTM	Long-Term Management
LUC	Land Use Controls
MCL	Maximum contaminant level
MMRP	Military Munitions Response Program
MTC	Maneuver Training Center
µg/kg	Micrograms per kilogram (didn't see this acronym in document)
µg/L	Micrograms per liter (didn't see this acronym in document)
NA	Not Applicable
NFA	No further action
NGB	National Guard Bureau
NPDES	National Pollutant Discharge Elimination System
NPL	National Priority List
NTCRA	Non-Time-Critical Removal Action

Acronyms & Abbreviations

OB/OD	Open Burning/Open Detonation
OTS	Oil Trenches
PA	Preliminary Assessment
PBC	Performance Based Contract
ppb	Parts per billion
POW	Prisoner-of-war
RA	Remedial Action
RAB	Restoration Advisory Board
RC	Response complete
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RFA	RCRA Facility Assessment
RFI	RCRA Facility Investigation
RI	Remedial Investigation
RIP	Remedy in Place
ROD	Record of Decision
SAR	Site Assessment Report
SI	Site Inspection
SVOC	Semi-volatile organic compound
SWMU	Solid Waste Management Unit
TCE	Trichloroethylene
TRADOC	Training and Doctrine Command
TRC	Technical Review Committee
USACE	U.S. Army Corps of Engineers
USAEC	U.S. Army Environmental Center
USAEHA	U.S. Army Environmental Hygiene Agency
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
UST	Underground storage tank
UXO	Unexploded ordnance
VOC	Volatile organic compound

Installation Locale: The former Fort Chaffee Garrison was located on 71,373 acres of land in Sebastian and Franklin counties, Arkansas. Highway 22 is the northern boundary of the former installation, except for a small portion that extended north of the highway. Highway 96 bisects the installation in a north-south direction. The former installation is approximately seven miles southeast of Ft. Smith (1990 population 72,798), the second largest city in Arkansas.

Installation Size

Installation Acreage: 71,359.00

BRAC Acreage: 7037.00

Acreage transferred to other service: 0.00

Acreage transferred to other federal agencies: 6.00

Acreage transferred to non-federal agencies: 7031.00

List of Off Post Properties: NA

Environmental Condition of Property:

Acres in Category 1: 6037.00

Acres in Category 2: 18.00

Acres in Category 3: 347.00

Acres in Category 4: 35.00

Acres in Category 5: 0.00

Acres in Category 6: 0.00

Acres in Category 7: 0.00

Lead Organization: Base Realignment and Closure Division (BRACD)

Lead Executing Agency: USACE, LRD

Regulatory Participation

Federal: U.S. Environmental Protection Agency (USEPA), Region 6

State: Arkansas Department of Environmental Quality (ADEQ)

State of Arkansas Regulation 23 (Resource Conservation and Recovery Act [RCRA] 40 Code of Federal Regulations [CFR] 265)

BRAC Closure Round: BRAC IV – Base Realignment and Closure, 1995

Installation Information

Status of Redevelopment Initiative (Reuse Plan): Redevelopment is underway

Organization Name: Fort Chaffee Public Trust

Plan Status: LRA Redevelopment Plan is in effect

Development Plan Date: 199808

Existing Legal Agreements/Interim Leases: NA

Significant Base Tenants: NA

Date of Final Transfer of Property: 200309

National Priorities List (NPL) Status: Not on NPL.

Installation Restoration Advisory Board (RAB)/Technical Review Committee (TRC)/Technical Assistance for Public Participation (TAPP) Status: RAB adjourned in November 2003 after last transfer.

Installation Program Summaries

IRP

Primary Contaminants of Concern: VOCs, SVOCs, pesticides, metals

Affected Media of Concern: Groundwater and soil

Estimated Date for Response Complete (RC): 200109

Funding to Date (up to FY05): \$ 29,707,000

Current Year Funding (FY06): \$ 53,000

Cost-to-Complete (FY07+): \$ 505,000

Transfer Summary

Total Installation Acres: 71,359.00 acres

BRAC Acres: 7037.00

Transfer date: 2003

All excess acreage has been transferred.

Cleanup Program Summary

Installation Historic Activity:

On September 9, 1941, Federal Judge John E. Miller signed the order granting the government possession of the land, which was designated Camp Chaffee, after the first Chief of Armored Forces, Major General Adna R. Chaffee. The government had to acquire numerous tracts of land before the establishment of Camp Chaffee. These tracts varied in size from 40 to 80 acres and up to several thousand acres. Most of the tracts were farm units that consisted of small fields of cropland (cotton and corn), pasture, farm wood lots, and small irregular-shaped areas of abandoned cropland. After acquiring the land from the owners, the government razed most of the tenant houses, fences, and other improvements. The original land acquisition amounted to approximately 76,075 acres. Because of disposals, corrected surveys, and audits, the number was eventually reduced to 71,373 acres.

Construction began in September, and the first troops arrived on December 7, 1941. The mission was to train armored divisions. Camp Chaffee also was used as a prisoner-of-war camp during the 1940s. After World War II, Camp Chaffee was placed in an inactive status in 1946. It was reactivated in June 1948, as the home of the 5th Armored Division. In February 1950, Camp Chaffee was once again deactivated. The Korean War caused reactivation in August 1950.

On March 21, 1956, Camp Chaffee was redesignated Fort Chaffee and became a permanent installation. In June 1959, Fort Chaffee became inactive and placed in caretaker status until October 1961. At this time, it was assigned the mission to train the 100th Division. In 1962, the mission went to the 3rd Corps Artillery and the 19th Corps Reserve Unit. In June 1965, Fort Chaffee was once again placed in caretaker status.

During November 1974, Fort Chaffee was redesignated U.S. Army Garrison, Fort Chaffee (semi-active). In 1975, Fort Chaffee became a Refugee Processing Center. More than 50,000 Indochina refugees were processed. In May 1980, Fort Chaffee once again became a Refugee Processing Center, processing more than 25,000 Cuban refugees by 1982.

In 1986, the Army selected Fort Chaffee as a site for the Joint Readiness Training Center (JRTC). The mission was to train troops under simulated combat conditions. During 1993, JRTC was moved to Fort Polk, Louisiana.

Activities at Fort Chaffee have generated listed hazardous and potentially listed and/or characteristic hazardous wastes, including spent degreasers, solvents, battery acid, contaminated fuels, and minor quantities of other potentially hazardous wastes.

Fort Chaffee was included on the 1995 Base Realignment and Closure (BRAC) list. The Enclave Area, consisting of 64,638 acres, was transferred from Department of the Army, TRADOC, to the ARARNG on October 1, 1997, at which time the name was changed to Fort Chaffee MTC.

Cleanup Program Summary

IRP

- Prior Year Progress: Two groundwater monitoring reports were reviewed by regulators. Five Year Reviews for FTCH-001 and FTCH-032 finalized. Well abandonment at two landfills scheduled for FY06.
- Future Plan of Action: Continue groundwater monitoring at FTCH-21E; complete Five Year Review at FTCH-21E.

FORT CHAFFEE

BRAC

Installation Restoration Program

IRP Contamination Assessment Overview

Fort Chaffee had a total of 34 Defense Sites Environmental Restoration Tracking System (DSERTS) which has been replaced by the Army Environmental Database-Restoration (AEDB-R) including landfills, disposal areas, spill areas, aboveground storage tanks (AST), underground storage tanks (UST), pesticide handling buildings, sanitary waste line, and waste treatment facility, among others.

As mandated by Congress in 1986, the Department of Defense (DOD) created and initiated implementation of the Defense Environmental Restoration Program (DERP). The Army program at active installations is referred to as the Installation Restoration Program (IRP). According to Congressional mandate, the IRP is to be carried out in a manner consistent with Section 120 of CERCLA. The IRP effort at Fort Chaffee MTC began in 1987 and has continued to the present, with major milestones summarized as follows:

- An evaluation of solid waste management units (SWMUs) was completed in 1988 as part of an Army-wide effort to meet requirements under the Hazardous and Solid Waste Amendments (HSWA). Thirty-two SWMUs were identified (at Fort Chaffee proper). A follow-up investigation targeted 12 of the 32 SWMUs. The report concluded that no sites required further investigation.
- A RCRA Facility Assessment (RFA) was completed in 1990. The RFA evaluated the 32 previously identified SWMUs, and identified two additional SWMUs and four areas of concern (AOCs). The RFA recommended no further action (NFA) for 17 SWMUs and RCRA Facility Investigations (RFIs) for 17 SWMUs.
- A RFI was completed in 1993 for the Arkansas Air National Guard Burn Pit (FTCH-04), the East and West Land Application Sites (EBS-20 and EBS-08, respectively), and Buildings 145 and 2350 (part of AOC-2). Buildings 145 and 2350 are not part of Fort Chaffee MTC. The report concluded that none of the four sites posed a threat to human health or the environment.
- A post-wide Environmental Baseline Survey (EBS) completed in 1996 identified 29 additional areas that required further assessment and/or investigation.

Decision documents were in place for all of the 34 BRAC sites by April 2003. RIP/RC was met in 2001.

IRP Cleanup Exit Strategy

Installation is at RIP. 4 IRP sites (FTCH-01, 13, 21E, 32) remain open, all of which are in the LTM phase. The LTM phase includes 5 year reviews and cap maintenance except at FTCH-21E, where groundwater monitoring is also included.

No Date

- Fort Chaffee MTC PA/SI
- USAEHA: Geohydrologic Study No. 38-26-0337-89
- Project Work Plan Excavation of Oil and Contaminated Soil Oil Trenches Site 35
- USAEHA: RCRA Facility Assessment, Doc. No. 38-26-8818-90

1969

- Info from Preliminary Report Description of Current Conditions: October

1990

- PRC Environmental Management Inc.: 1990 RCRA Facility Assessment: August

1993

- Info from Solid Waste Management Unit Synopsis Draft RCRA 3008 (h) Order: June
- USAEHA: Geohydrologic Study No. 38-26-KV45-93, Mar 17-28

1995

- Paul McKee: Hydrogeology and Simulation Around Sewage Lagoons in the Alluvial Basin of the Arkansas River, Arkansas (Master of Science Thesis)

1996

- USGS: Preliminary Report: RCRA Facility Investigation, Site 39 COTS
- OHM Remediation Services Corp.: Info from Draft Technical Evaluation and Action Level Recommendation Report for the Active USTs: August
- Environmental Baseline Survey: October
- Info from Preliminary Report Description of Current Conditions: October
- USGS: Preliminary Report: Description of Current Conditions: October
- USACE: RI Second RA and Feasibility Study for Contaminated Oil Trenches: December

1997

- Closure Report UST Site Number 5830, Project Number CHAS950005: January
- Stormwater-runoff Monitoring at the Fort Chaffee Facility, United States Geological Survey Administrative Report: April
- Closure Report UST Site Number B2350, Project Number CHAS950005: June

1998

- Remedial Investigation Report Site 21, Project Number CHAS030001: February
- Remedial Investigation Report Site 17, Project Number CHABS950031: March
- RI Report Site 43/44 East and West Land Application Areas, Project Number CHABS950031: April
- Defense Environmental Restoration Program Non-Evaluated Sites Investigation Report: May
- USACE: Tulsa District Memo: August

1999

- Remediation Summary Report, Removal of Fuel Transmission Lines and Fill Stands, Site FTCH-40: August

2000

- Remedial Investigation Report, East Land Application Area, Site FTCH-43: February
- Final Data Summary Report: May

2001

- Closure Report for Burn/Burial Pits Site 4, May 1998 (amended April 2001): April

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IRP Site Descriptions

FTCH-01 LANDFILL #1

SITE DESCRIPTION

Implementation of Containment Presumptive Remedy within framework of a Removal Action Complete.

Long-term monitoring is underway.

Included in ROD V for no further action, signed September 30, Sep 2002.

Permit for Permitted Section of Landfill #1 voided in FY06.

CLEANUP STRATEGY

Groundwater monitoring wells to be abandoned in FY06. LTM (five-year reviews) will continue. Institutional Controls Include Cap Maintenance.

STATUS

REGULATORY DRIVER: CERCLA

RRSE: Low

CONTAMINANTS OF CONCERN:
None

MEDIA OF CONCERN: None

Phases	Start	End
PA.....	198805	198809
SI.....	198805	198809
RI/FS	199808	199903
RD	199912	200003
RA(C)	200003	200011
LTM	200012	203612

RC DATE: 200011

FTCH-13 INCINERATOR SLAG PILES

SITE DESCRIPTION

RI report was revised to include comments from EPA. State concurs with no unacceptable risk for future industrial use, which is the reasonably anticipated future use for the site. EPA does not. Army acceded to EPA change NA ROD VI to NFA ROD with LUC & 5 year CERCLA reviews.

ROD - April 2003.

CLEANUP STRATEGY

LTM (five-year reviews) will continue.

STATUS

REGULATORY DRIVER: CERCLA

RRSE: Low

CONTAMINANTS OF CONCERN:
Metals

MEDIA OF CONCERN: Soil

Phases	Start	End
PA.....	198805	198805
SI.....	199904	199906
RI/FS	199906	200109
LTM	200304	203604

RC DATE: 200109

FTCH-21E

HW SATELLITE ACCUMULATION POINT BLDG 460

SITE DESCRIPTION

TCE was detected in groundwater at levels as high as 60,000 ppb, and in soils at levels acting as continued source of groundwater contamination. Groundwater plume has been delineated. A Non Time Critical Removal Action (NTCRA) was implemented on September 18, 2001. It included a limited soil removal, institutional controls including groundwater, and industrial use restrictions. EE/CA addressed all media. An action memorandum signed on September 9, 2001. A site closeout report was finalized in 2003.

Groundwater monitoring began August 2002 and continues.

CLEANUP STRATEGY

The first five-year review is scheduled for FY07. LTM (groundwater monitoring and five-year reviews) will continue.

STATUS

REGULATORY DRIVER: CERCLA

RRSE: High

CONTAMINANTS OF CONCERN:
VOCs

MEDIA OF CONCERN:
Groundwater, soil

Phases	Start	End
PA.....	199007	199908
SI.....	199707	199811
RI/FS	200008	200108
RD	200109	200109
RA(C)	200109	200109
LTM	200208	203608

RC DATE: 200109

FTCH-32 NORTH POW LANDFILL

SITE DESCRIPTION

CAP construction complete.

Began groundwater monitoring September 2000 and ceased in 2005.

Institutional controls for protection of the remedy documented in ROD V for no further action which was signed September 30, 2002.

First 5-year review was finalized in March 2006.

CLEANUP STRATEGY

Monitoring wells will be abandoned in FY06.
LTM (five-year reviews) will continue.

STATUS

REGULATORY DRIVER: CERCLA

RRSE: High

CONTAMINANTS OF CONCERN:
TCE

MEDIA OF CONCERN:
Groundwater

Phases	Start	End
PA.....	198805	198805
SI.....	199605	199701
RI/FS	199702	199812
RD	199810	200002
RA(C)	200002	200008
LTM	200009	203609

RC DATE: 200009

BRAC No Further Action Sites Summary

AEDB-R #	Site Title	Documentation/Reason for NFA	NFA Date
FTCH-09	Containerized Stg Area DDT	All Required Cleanup (s) Completed	199810
FTCH-12	Former Hazardous Waste Storage Area	Study Completed, No Cleanup Required	199811
FTCH-14	Waste Oil Stg Tank	Study Completed, No Cleanup Required	199712
FTCH-15	Pcb Stg Area Bldg 426	Study Completed, No Cleanup Required	199710
FTCH-16	Landfill Wood/Burnable Dis Site	Study Completed, No Cleanup Required	199901
FTCH-17	Vehicle Wash Rack Ditches	Study Completed, No Cleanup Required	199810
FTCH-19	West Area 3 UST's	Study Completed, No Cleanup Required	199707
FTCH-21A	Waste Oil Stg Containers Bld 262	Study Completed, No Cleanup Required	199811
FTCH-21B	Waste Oil Accumulation Point B423	Study Completed, No Cleanup Required	199811
FTCH-21C	Waste Oil Accumulation Point B421	Study Completed, No Cleanup Required	199811
FTCH-22	Fire Training Site	All Required Cleanup (s) Completed	200008
FTCH-23	Containerized Waste Stg Area BI 339 DRMO	Study Completed, No Cleanup Required	199809
FTCH-24	Paint Shop Waste Storage Bldg 416	Study Completed, No Cleanup Required	199712
FTCH-25	Silver Recovery Unit-Troop Medical Clinc	Study Completed, No Cleanup Required	199805
FTCH-27	Incinerator Old Hospital	Study Completed, No Cleanup Required	199809
FTCH-29	Ce Dredging MAT Open Dump	Other	198805
FTCH-33	Oil Water Separator Sludge Disposal Area	Study Completed, No Cleanup Required	199810
FTCH-34	Remove O/W Seps AST. UST's & Lines	Study Completed, No Cleanup Required	199810
FTCH-35	Underground Storage Tanks	All Required Cleanup (s) Completed	199811
FTCH-36	Ninth Avenue UST's	Study Completed, No Cleanup Required	199706
FTCH-37	Bldg 260 & 263 UST's	Study Completed, No Cleanup Required	199709
FTCH-38	Bldg 428 UST	Study Completed, No Cleanup Required	199808
FTCH-40	Fill Stands/Fuel Transmission Line	All Required Cleanup (s) Completed	199908

BRAC No Further Action Sites Summary

AEDB-R #	Site Title	Documentation/Reason for RC	NFA Date
FTCH-41	Defoliant Spray Areas	Study Completed, No Cleanup Required	199909
FTCH-42	Pesticide Handling Area Bldg 477	Other	200109
FTCH-42A	Pesticide Management Bldg. 540	Study Completed, No Cleanup Required	199810
FTCH-44	West Land Application Site	Study Completed, No Cleanup Required	199911
FTCH-45	Wood Dump	Study Completed, No Cleanup Required	199909
FTCH-46	Oil Houses	Study Completed, No Cleanup Required	200001
FTCH-47	Sanitary Sewer Lines	Study Completed, No Cleanup Required	198805
FTCH-48C	UXO Mitigation	Study Completed, No Cleanup Required	199909
FTCH-49C	Hospital Asbestos Remediation	All Required Cleanup (s) Completed	199911
FTCH-50C	Asbestos Survey	Study Completed, No Cleanup Required	199909

Initiation of BRAC: 1995

Past Phase Completion Milestones

1997

- RA FTCH-35, Waste Removal- Drums, Apr

1998

- RA FTCH-22, Waste Removal, Sep
- RA FTCH-09, Waste Removal, Oct
- RA FTCH-35, Waste Removal, Nov

1999

- RA FTCH-40, Removal, Jun
- RA FTCH-49C, Removal, Nov

2000

- IRA FTCH-01, Capping, Nov
- IRA FTCH-32, Capping, Aug

2001

- RA FTCH-21E, Waste Removal, Sep

Projected Record of Decision (ROD)/Decision Document (DD) Approval Dates:
Completed in FY2003

Schedule for Next Five Year Review: 2007

Estimated Completion Date of BRAC (including LTM phase): 2037

Fort Chaffee BRAC Schedule

(based on current funding constraints)

AEDB-R#	Phase	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15+
FTCH-01	LTM									203612
FTCH-13	LTM									203604
FTCH-21E	LTM									203608
FTCH-32	LTM									203609

Prior Years Funds

Total Funding up to FY04: \$29,542K

Site Information	Expenditures	FY Total
		\$165K

Total Prior Year Funds: \$29,707K

Current Year (FY06) Requirements

Site Information	Expenditures	FY Total
LTM, FTCH-01	\$20K	
LTM, FTCH-21E	\$18K	
LTM, FTCH-32	\$15K	\$53K

Total Future Requirements: \$505K

Total BRAC Program Cost (from inception to completion of the IRP): \$30,265K

Restoration Advisory Boards

In January 1996 (FY96), a public meeting was held to educate the public on the concept of Restoration Advisory Boards (RABs) and to solicit participation in a RAB at Fort Chaffee. Applications for membership were handed out to attendees. A copy of the application form also was published in the local newspaper. Additional local interest was canvassed through press releases and paid advertisements.

Results

Close to 20 applications were received from members of the surrounding communities. The Installation Commander authorized the appointment of a selection panel. The selection panel reviewed the applications, conducted interviews, and proposed a membership selection list, which was approved by the Commander.

Conclusion

The Fort Chaffee RAB was officially established in April 1996, with 12 community members. The RAB was adjourned in October 2003 after the last transfer took place.